

What is claimed is:

1. A method of detecting the presence of fixer or ink on a print media, said media including a fluorescent substance, said method comprising the steps of:
 - 5 (i) irradiating said media at least at a first wavelength and causing said substance to fluoresce to produce radiation at least at a second wavelength different from said first wavelength;
 - (ii) detecting the reflectivity of a portion of said media at said second wavelength;
 - 10 (iii) providing a reference reflectivity; and
 - (iv) comparing said detected reflectivity with said reference reflectivity to detect whether fixer or ink is present at said portion of said media.
2. A method according to claim 1 wherein said irradiating step comprises irradiating said media with ultra-violet light.
- 15 3. A method according to claim 1, wherein said detecting step comprises detecting the reflectivity in the visible light range.
- 20 4. A method according to claim 1, wherein said media is plain or matt paper.
5. A method according to claim 1, wherein said reference reflectivity corresponds to the reflectivity at said second wavelength of a different portion of said media without fixer or ink applied thereto.
- 25 6. A method according to claim 5 further comprising the further step of detecting the reflectivity at said second wavelength of said different portion of said media without fixer or ink applied thereto and using this as said reference reflectivity in said comparing step.

7. A method according to claim 5 further comprising the further step of storing the reflectivity at said second wavelength corresponding to the absence of fixer or ink and using this as said reference reflectivity in said comparing step.
- 5 8. A method of detecting fixer or ink on a print media comprising the steps of applying the fixer or ink to selected locations on a fluorescent print media, irradiating said media at a first wavelength, and identifying said locations at which the fixer or ink has been applied by comparing the reflectivities at a second wavelength at said locations where fixer or ink has been applied with reflectivities 10 at said second wavelength at locations where fixer or ink has not been applied.
9. An apparatus for detecting the presence of fixer or ink on a print media, said print media including a fluorescent substance, said apparatus comprising a source of electromagnetic radiation of at least a first wavelength causing said substance to fluoresce to produce radiation at least at a second wavelength different from said first wavelength, said source being arranged to direct said radiation at said media, a detector of radiation at said second wavelength, said detector being arranged to detect the intensity of radiation at said second wavelength reflected from a portion of said media, and a comparator connected to said detector, said comparator being 15 arranged to compare said detected intensity with a reference intensity of reflected radiation.
- 20 10. An apparatus according to claim 9, wherein said source radiates ultra-violet light.
- 25 11. An apparatus according to claim 10, wherein said detector detects visible light.
12. An apparatus according to claim 9, wherein said reference intensity corresponds to the absence of fixer or ink on said print media.
- 30 13. An apparatus according to claim 12, wherein said detector provides at least first and second outputs to respective first and second inputs of said comparator, said first detector output corresponding to a portion of said print media to be checked and

said second detector output corresponding to a portion of said print media without fixer or ink.

14. An apparatus according to claim 12, wherein said detector provides an output to a
5 first input of said comparator, the apparatus comprising a memory for storing an intensity value corresponding to the absence of fixer or ink on said print media, and said stored intensity value is provided to a second input of said comparator.

15. An apparatus according to claims 9, for detecting the presence of both fixer and ink
10 at separate locations on a print media, said apparatus comprising first and second sources of electromagnetic wavelengths, said first source radiating at least at said first wavelength and said second source radiating at other wavelengths.

16. An apparatus according to claim 9, for detecting the presence of both fixer and ink
15 at separate locations on a print media, said source of electromagnetic radiation radiating over a relatively wide range of wavelengths.

17. An apparatus according to claim 16, wherein an optical band pass filter is provided
20 between a portion of said source and said print media.

18. An apparatus for detecting fixer or ink on a fluorescent print media comprising a
25 printhead, said printhead being arranged to apply fixer or ink to selected locations on said media, a source of electromagnetic radiation for irradiating said print media at least at a first wavelength, and a detector for detecting the reflectivity at least at a second wavelength at selected portions of said print media.

19. An apparatus for detecting fixer or ink on a fluorescent print media comprising
30 means for printing said fixer or ink at selected locations on said media, means for irradiating said print media at least at a first electromagnetic wavelength, and means for detecting the reflectivity at least at a second electromagnetic wavelength at selected portions of said print media.

20. A hardcopy device including an apparatus for detecting the presence of fixer on a print media, said print media including a fluorescent substance, said apparatus comprising a source of electromagnetic radiation of at least a first wavelength causing said substance to fluoresce to produce radiation at least at a second wavelength different from said first wavelength, said source being arranged to direct said radiation at said media, a detector of radiation at said second wavelength, said detector being arranged to detect the intensity of radiation at said second wavelength reflected from a portion of said media, and a comparator connected to said detector, said comparator being arranged to compare said detected intensity with a reference intensity of reflected radiation, said device further including a fixer printhead including a plurality of nozzles for applying fixer to said print media in a selected pattern.
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21. A hardcopy device according to claim 20, further comprising a controller, said controller being arranged:
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- (i) to cause said nozzles to apply fixer to a portion of said print media in said predetermined pattern;
 - (ii) to move said portion of said print media to a location adjacent said source and said detector;
 - 20 (iii) to cause said source to irradiate said portion; and
 - (iv) to cause said detector to detect the intensity of radiation reflected from said portion and to supply an output to said comparator.
22. A hardcopy device according to claim 20, said hardcopy device being an ink-jet printer and comprising one or more further printheads for one or more inks.
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A hardcopy device according to claim 22, wherein said fixer printhead, said one or more further printheads, said source of electromagnetic radiation and said detector are all mounted on a movable carriage.